

REMARKS

Claims 1-5 are pending in the application. In the Office Action dated November 1, 2004, the Examiner rejected claims 1-5 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,556,884 (“Miller”) in view of U.S. Pat. No. 6,442,499 (“Gorin”). In this Amendment, claims 1, 3, 4, and 5 have been amended. Applicant respectfully requests reconsideration and withdrawal of the rejection in light of the amendments to claims 1, 3, 4, and 5, and the following remarks.

I. The Proposed Combination of Miller and Gorin Does Not Render the Currently-Claimed Invention Unpatentable

Independent claims 1, 3, 4, and 5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over a combination of Miller and Gorin. Amended independent claims 1, 3, 4, and 5 are directed to a run-to-run method or system for monitoring and controlling a manufacturing process of a plurality of wafers. Generally, the plurality of wafers is subjected to at least one manufacturing process and at least one of the plurality of wafers is ***marked based on requirements for an inline statistical process control (“SPC”) method and the run-to-run method.*** The at least one marked wafer is subjected to an inline SPC measurement and the manufacturing process is controlled based on the inline SPC measurement. Finally, at least one wafer is selected for the run-to-run method and the inline SPC method.

Miller is directed to a method and apparatus for interfacing a statistical process control system with a manufacturing control system for a semiconductor manufacturing facility. Miller discloses performing a process control analysis and a statistical process control analysis on a processed semiconductor device, and controlling a manufacturing process based on the results of the two analysis. However, as admitted by the Examiner, Miller does not disclose or suggest ***selecting a wafer based on the requirements of an inline SPC method and a run-to-run method.*** Like Miller, Gorin also does not disclose or suggest selecting a wafer based on the requirements of an inline SPC method and a run-to-run method.

Gorin is directed to a method for determining an optimum waiting time for testing a plurality of components such as wafers. Specifically, Gorin discloses selecting

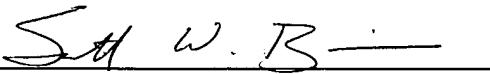
components based on criteria to optimize wait time. Gorin also does not disclose or suggest selecting components based on requirements for an inline SPC method or a run-to-run method as in the currently-claimed invention.

Due to the fact neither Miller or Gorin disclose or suggest the element of ***selecting a wafer based on the requirements of an inline SPC method and a run-to-run method***, any combination of Miller and Gorin necessarily cannot render independent claim 1, 3, 4, and 5, or dependent claim 2 unpatentable. Applicant respectfully requests reconsideration and withdrawal of the rejection to claims 1-5.

II. CONCLUSION

In view of the foregoing amendment and remarks, Applicant submits that the pending claims are in condition for allowance. Reconsideration is therefore respectfully requested. If there are any questions concerning this Response, the Examiner is asked to phone the undersigned attorney at (312) 321-4200.

Respectfully submitted,



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